

Flood Protection Corridor Program
Project Evaluation Criteria
And Competitive Grant Application Form

I. Introduction

Grant funds under the Flood Protection Corridor Program (FPCP) of the Costa Machado Water Act of 2000 (Proposition 13) are available to local public agencies and nonprofit organizations from the Department of Water Resources. Funds will be used to pursue FPCP goals, which are to provide “for the protection, creation, and enhancement of flood protection corridors through all of the following actions:

“(1) Acquiring easements and other interests in real property from willing sellers to protect or enhance flood protection corridors and floodplains while preserving or enhancing the agricultural use of the real property.

“(2) Setting back existing flood control levees and, in conjunction with undertaking those setbacks, strengthening or modifying existing levees.

“(3) Acquiring interests in real property from willing sellers located in a floodplain that can not reasonably be made safe from future flooding.

“(4) Acquiring easements and other interests in real property from willing sellers to protect or enhance flood protection corridors while preserving or enhancing the wildlife value of the real property.”

-- *[Water Code, Chapter 5, Article 2.5, Section 79037(b)]*

The following information constitutes the basis for determining whether a proposed project meets the legal criteria for funding under the Flood Protection Corridor Program and for evaluating the proposal to determine its priority in competition with all concurrent proposals. Proposals qualified under Section III of these criteria will be placed on one of two priority lists. If the proposal serves a flood protection need that is a high priority with the Department of Water Resources (other than through this Program) and it also rates a high priority *either* with the Department of Conservation for purposes of preserving agricultural land under the California Farmland Conservancy Program, *or* with the Department of Fish and Game for purposes of wildlife habitat or restoration, it will be placed on the “A List”. All other qualified projects will be placed on the “B List”. “A List” projects will be funded first, and when all “A List” projects have been funded to the Department’s stated limit, “B List” projects will be funded.

II. General Information

Project Name: Clover Creek Preserve

Project Location: City of Redding County: Shasta

Name and address of sponsoring agency or non-profit organization: City of Redding

Name of Project Manager (contact):

Robert Russell(Engineering/Flood Control Information)

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Grant Request Amount: \$3,700,000 (includes \$418,623 for maintenance trust fund)

<hr/>	<u>Manager of Community Projects</u>
Project Manager	Title

February 13, 2003

Date

Project Objective(s): Briefly describe your project and explain how it will advance FPCP goals. Please also include a detailed map of the immediate project site and another that shows its location within your geographical area. Photographs showing problem areas proposed to be enhanced by the project should also be included.

The Clover Creek Preserve project proposes to restore and conserve approximately 128 acres of land that had been slated for residential development. Within the past year, the City of Redding (City) has acquired fee title to 122 acres, at a cost of \$2,093,116. The City will also contribute a 6-acre site (previously used as a City water well facility) to the project. Project components of the Clover Creek Preserve project include the creation of a 46± acre detention basin/flood plain area (with 10 to 15 acres of associated seasonal wetland, marsh, perennial pond and riparian habitat); the enhancement or creation of 25 to 40 acres of oak woodland and 40 to 55 acres of grassland with scattered vernal pools; and the construction of bike paths, walking trails, a parking area, and habitat interpretive areas.

Two and one half years in the planning, the Clover Creek Preserve, as designed, will be a one-of-a-kind 128-acre open space preserve, fulfilling a number of high priority habitat enhancement, flood protection, and recreational goals established by the multiple jurisdictions it serves. It is our belief that the Preserve will also directly assist in the achievement of goals established by the Flood Protection Corridor Program (FPCP) for the protection, creation, and enhancement of flood protection corridors in the State. (Refer to Exhibit A – Regional Location of Project; Exhibit B – Conceptual Site Plan - Clover Creek Preserve; Exhibit C – Pre-design Technical Memorandum – Clover Creek)

Upon development, Clover Creek will be a state-of-the-art storm water detention facility providing flood protection to over 5,000 acres of Clover Creek watershed throughout a multi-jurisdictional area. A significant portion of this watershed is subject to yearly inundation during storm events, causing both physical and economic harm to existing development and rendering other portions of the flood plain undevelopable. The project site itself, while containing acres of valuable habitat resources, is currently scarred by vehicular trespass, illegal dumping, and a privately constructed system of open culverts, levees, and ditches. As stated previously, 122 acres of privately held land has been acquired at a cost of \$2,093,116. Sufficient land was acquired to allow restoration of the natural creek profile. An important element in the project, Clover Creek, a naturally shallow braided stream, will be returned to a natural profile with 2,700 lineal feet of restored riparian and riverine habitat. The project site is surrounded by urban development with those properties to the south and west of the site currently affected by seasonal storm events. The proposed detention basin with a maximum capacity of approximately 362 acre-feet will effectively reduce downstream flooding by briefly storing storm water with releases gauged to match downstream channel capacity.

Although flood protection is at the heart of its design, the project also incorporates the restoration and preservation of valuable riparian and wetland habitats as an integral feature. Development of the facility will ensure the enhancement and protection of the existing natural resources and provide for the creation on site of additional habitat areas. In total, over 15 acres of new wetland areas, including vernal pools, seasonal wetlands, seasonal marshes, perennial marshes, and an open water pond, will be developed on site. In addition, appropriate riparian vegetation adjacent to the newly naturalized creek channel will be reintroduced.

Specific to this application, Flood Protection Corridor Program (FPCP) funding in the amount of \$3,700,000 is being requested to assist with the costs associated with the construction of the facility (\$3,281,377) and to establish a maintenance trust fund (\$418,623) to assist with the costs associated with long term maintenance of the facility following construction.

Construction of the project will provide protection and enhancement of increasingly rare habitat areas and species, will provide for nondestructive public access to these resources, will provide additional recreational amenities for a regional population, and will provide much needed flood protection for this portion of the community. The \$10.6 million project at completion will be the only facility of its kind north of Davis and will serve as an exemplary model for similar multi-purpose endeavors both regionally and throughout California. As designed, Clover Creek Preserve will be evidence that community flood protection goals and broader ecological goals do not have to be mutually exclusive. Through its cost effective and innovative design which marries desirable recreational and ecological features with state-of-the-art flood plain management engineering, Clover Creek Preserve will not only maximize the investment of public funds, it will also enhance the value and development potential of a significant amount of surrounding property currently subject to yearly flooding.

(Exhibit A – Regional Location of Project)

(Exhibit B – Conceptual Site Plan)

Exhibit C – Pre-design Technical Memorandum – Clover Creek

Photo Exhibits

***To be complete, an application package must include all of the items specified in the proposed Section 497.7 of Title 23, California Code of Regulations, Division 2, that is available on the FPCP web site (www.dfm.water.ca.gov/fpcp) by selecting the Regulations link.**

Please refer to the Attachments following this application form which supplement Application Sections IV, V, and VI and address the remaining items specified in Section 497.7 of Title 23, California Code of Regulations, Division 2:

Attachment A: Hydrologic and Hydraulic Analysis (Request for CLOMR – Clover Creek Project);
Attachment B: Initial Study and Mitigated Negative Declaration, Notice of Determination;
Attachment C: Other 497.7 Requirements, including:

- a) Project Permitting;
- b) Public Participation;
- c) Statement Regarding Trust Fund for Maintenance of Facility;
- d) Authorizing Resolution
- e) Project Financial Summary;
- f) Project Site Land Tenure; and
- g) Project Work Plan/Time Table/Use of CCC on Project.

III. Minimum Qualifications

Project proposals that do not meet the minimum qualifications will not be accepted.

- A. ☐ The project proposes to use any granted funds for protection, creation, and enhancement of flood protection corridors *[Water Code Section 79037(b)]*.
- B. ☐ A local public agency, a non-profit organization, or a joint venture of local public agencies, non-profit organizations, or both proposes the project *[Water Code Section 79037(a)]*.
- C. ☐ The project will use the California Conservation Corps or a community conservation corps whenever feasible *[Water Code Section 79038(b)]*.
- D. ☐ If it is proposed to acquire property in fee to protect or enhance flood protection corridors and floodplains while preserving or enhancing agricultural use, the proponent has considered and documented all practical alternatives to acquisition of fee interest *[Water Code Section 79039(a)]*.
- E. ☐ Holders of property interests proposed to be acquired are willing to sell them *[Water Code Section 79040]*.

F. ☐ If it is proposed to acquire property interests, the proposal describes how a plan will be developed that evaluates and minimizes the impact on adjacent landowners prior to such acquisition and evaluates the impact on the following [Water Code Section 79041]:

- ▶ Floodwaters including water surface elevations and flow velocities
- ▶ The structural integrity of affected levees
- ▶ Diversion facilities
- ▶ Customary agricultural husbandry practices
- ▶ Timber extraction operations

The proposal must also describe maintenance required for a) the acquired property, b) any facilities that are to be constructed or altered.

G. ☐ The project site is located at least partially in one of the following:

1. A Federal Emergency Management Agency (FEMA) Special Flood Hazard Area (SFHA), or
2. An area that would be inundated if the project were completed and an adjacent FEMA SFHA were inundated, or
3. A FEMA SFHA, which is determined by using the detailed methods identified in FEMA Publication 37, published in January 1995, titled "Flood Insurance Study Guidelines and Specifications for Study Contractors", or
4. A floodplain designated by The Reclamation Board under Water Code Section 8402(f) [Title 23, California Code of Regulations, Division 2, Section 497.5(a)], or a
5. Locally designated Flood Hazard Area, with credible hydrologic data to support designation of at least one in 100 annual probability of flood risk. This is applicable to locations without levees, or where existing levees can be set back, breached, or removed. In the latter case, levee setbacks, removal, or breaching to allow inundation of the floodplain should be part of the project.

RESPONSE SECTION III:

Section III "Minimum Qualifications" has been reviewed and the proposed project meets the necessary criteria for funding.

IV. (340 points) Flood Protection Benefits

A. Existing and potential urban development in the floodplain (50)

1. Describe the existing and potential urban development at the site and the nature of the flood risk.
2. How often has flooding occurred historically?
3. Discuss the importance of improving the flood protection at this location. Include the number of people and structures that are affected by the flood hazard, and the flood impacts to highways and roads, railroads, airports and other infrastructure, and agriculture.

Response Section IV-A:

The Clover Creek drainage basin is approximately 6.84 square miles. Clover Creek begins in the Cascade Mountains and flows through portions of the City of Redding and Shasta County before meeting with Sacramento River near the city of Anderson. In the 1970's the length of Clover Creek on the project site was channelized removing its natural stream meander. Subsequent to the channelization of the creek, a 285 unit subdivision development was proposed and approved for the project site. This residential development included plans to realign the creek channel (200 feet wide) to the east of its existing location. Construction activities on the creek realignment began in 1994 but ceased thereafter due to financial issues leaving an unfinished bypass channel. Significant portions of the site were left in an unvegetated state vulnerable to erosion and the resultant water quality degradation. It is believed that the channelization, in conjunction with other local and upstream development, is contributing to a local flooding problem for residents downstream of the project area. The channelized state of the creek allows for quick conveyance of high-flow storm events to properties downstream. During the winters of 1996/97 and 1997/98, properties downstream suffered flood related damages which at that time was estimated in the range of \$800,000. In February 2002, there were 44 improved properties between the Clover Creek Preserve project southerly boundary and Rancho Road subject to inundation during a 100-year event. A multiplier of 2.3 persons per dwelling is used to estimate the affected population to be 101 persons. In addition, there is approximately one mile of improved public roads and nearly another mile of private graded dirt roads serving these properties that are also subject to inundation during the 100-year event.

According to a storm drain study of the Redding urban area conducted by the firm of Montgomery Watson in 1994, the Clover Creek drainage basin (the Clover Creek project site included) is a flood-prone area. Downstream flooding is occurring as often as storm events in the 2-5 year range. Flood waters are currently causing property damage and threatening public safety for the residents downstream of the project site. Preliminary hydraulic analyses conducted by the firm of Hydmet, Inc., indicate that detaining flows that exceed a 2-year storm event would alleviate flooding and the resultant damage to property downstream.

B. Flood damage reduction benefits of the project (100)

1. Does the proposed project provide for transitory storage of floodwaters? What is the total community need for transitory storage related to this water

course and what percentage of the total need does this project satisfy? What is the volume of water and how long is it detained?

2. Describe any structural and non-structural flood damage reduction elements of the project. (Examples of structural elements are levees, weirs, detention/retention basins, rock slope-protection, etc. Examples of non-structural elements are acquisition of property for open space, acquisition of land for flood flow easements, transitory storage, relocation of structures and other flood prone development, elevating flood prone structures, flood proofing structures, etc.)
3. By what methods and by how much dollar value will the project decrease expected average annual flood damages?
4. How does the project affect the hydrologic and hydraulic conditions at the project site and adjacent properties?
 - a) Will the project reduce the magnitude of a flood flow, which could cause property damage and/or loss of life?
 - b) What are the effects of the project on water surface elevations during a flood event which could cause property damage and/or loss of life?
 - c) How are flow velocities impacted by the project during a flood flow which could cause property damage and/or loss of life?

Response Section IV-B:

The design of this project is a hybrid of both structural and non-structural solutions to existing flooding problems. The proposed detention basin provides both structural and non-structural elements which work together to effectively provide flood protection. Construction of the basin will entail the removal of approximately 8 feet of soil (approximately 390,000 cubic yards) over the 46± acre detention basin area. The basin will provide approximately 330 acre-feet of storage capacity for high-flow storm events and will be constructed with varying levels of flood plain shelves. An outlet structure will be placed at an elevation that will allow for unimpeded low flows; while detaining high flows for a sufficient time to prevent flooding of homes and property downstream. In addition, a spillway will be incorporated into the design should storage capacity be exceeded during a high flow event. Some grading will be required downstream to reconnect or daylight the outfall structure to the existing Clover Creek channel. Subsequent to initial basin creation, fine grading will occur to create perennial ponds, marshes, and seasonal wetland areas within the basin. Also within the basin, the Clover Creek stream channel will be reconstructed so as to meander in a more natural stream course manner. Upon completion of the construction of the detention basin, flows that are less than a 2-year event would be carried normally within the enhanced channel.

At full capacity (following a 100-year event or 6 inches of rain over a 24 hour period), the basin is designed to drain within a 32-hour period. The following capacity and operational estimates have been prepared by the firm of Stantec Consulting Inc., the principal engineering firm working on the project design:

- **100-year Water Surface Elevation = 517.3 feet**
- **100-year Maximum Storage Volume = 359 AF**
- **100-year Peak Inflow Rate = 1,066 cfs**
- **100-year Peak Outflow Rate = 157 cfs**

The detention basin and low-flow stream channel will be designed such that natural low flows will be unimpeded. High-flow storm events will be detained for a sufficient amount of time to prevent flooding on homes and properties downstream. The value of the existing 44 homes affected by flooding is estimated to be in excess of \$10,000,000. Flood damage in the past has been significant to all of these homes. The cost of reconstructing the existing road ways to an elevation above the flood plain is estimated to be over \$2 million.

The detention basin has been designed so that the water surface elevation during a 100-year event will be 517.3 feet. This will essentially eliminate surcharging of flows collected in the detention basin up into nearby subdivision streets via existing storm drains during a 100-year event.

C. Restoration of natural processes (60)

1. Describe how any natural channel processes will be restored (for example: for channel meander, sediment transport, inundation of historic floodplain, etc.) and describe how these natural processes will affect flood management and adjacent properties.
2. Describe any upstream or downstream hydraulic or other effects (such as bank erosion or scour, sediment transport, growth inducement, etc.).
3. If the project includes channel modification or bank protection work, will riprap or dredging be part of the design? If so, provide an analysis of potential benefits and impacts.

Response Section IV-C:

The Clover Creek project will restore the channelized Clover Creek to a more naturally-functioning creek channel while providing flood protection downstream. As a result of previous disturbance, siltation, deposition and erosion are causing a negative impact on the environment and the public health and safety. Although a completely natural environment cannot be recreated due to the existing urban and rural development upstream and downstream of the Clover Creek project site, the Clover Creek project will restore as many natural functions and characteristics of the creek as possible, while at the same time providing protection from the damaging high-flow events caused by increased run-off within the Clover Creek drainage basin. The project will reduce the occurring adverse negative effects of siltation, deposition and erosion as a whole. The restored channel will be created along its historically occurring course and will include a 4-foot wide by 1-foot deep low flow channel bordered by 4-foot to 10-foot wide planting benches cut 1 to 2 feet below adjacent grade.

Outside the basin, in the western half of the site, existing drainage ditches, which convey urban runoff from the adjacent development on the west, will be recontoured to

mimic natural seasonal drainage swales. These swales will provide for settling out of nutrients and turbidity from adjacent urban runoff prior to reaching the creek.

Please refer to Exhibit C, Predesign Technical Memorandum, which contains a complete description of both the flood control and habitat restoration components of the Clover Creek project.

D. Project effects on the local community (60)

1. How will the project impact future flooding on and off this site?
2. How will the project affect emergency evacuation routes or emergency services and demands for emergency services?
3. Explain how the project will comply with the local community floodplain management ordinance and the floodplain management criteria specified in the Federal Emergency Management Agency's National Flood Insurance Program (FEMA's NFIP).

Response Section IV-D:

With the construction of the Clover Creek project, the incidence of flooding on downstream properties will be reduced to extraordinary storm events if at all. The system has been designed to provide flood protection to the area under storm events up to and including those at the 100-year level. In the event of the rare occurrence of a storm having a return period of greater than 100 years occurring over a fully developed upstream watershed, the design includes a concrete spillway whose sole function is to provide a controlled overflow for the detention basin.

The project will not affect emergency evacuation routes, will not impede the provision of emergency services in the area, nor will it create additional demands for emergency services.

The Clover Creek project is in conformance with all local flood plain management regulations. It also furthers the goals and objectives of the City of Redding General Plan A formal Request for Conditional Letter of Map Revision (CLOMR) to the Federal Emergency Management Agency (FEMA) for the Clover Creek project was submitted in July 2001. The project was reviewed pursuant to FEMA's National Flood Insurance Program (NFIP) and received approval from that agency in February 2002. A copy of the request and associated maps is included as Attachment A.

E. Value of improvements protected (70)

1. What is the assessed value of structural improvements that will be protected by the project?
2. What is the estimated replacement value of any flood control facilities or structures protected by the project?

Response Section IV-E:

There are 44 existing homes and approximately two miles of roadways which will be directly protected by the proposed Clover Creek project. Valuation of these existing features is estimated to be \$12 million (approximately \$225,000 per home and \$2.1 million in public improvements). Additional homes are planned for the area immediately to the south of the project site that will also benefit directly from the flood protection provided by Clover Creek facility.

There are no existing flood control facilities or structures that are proposed to be protected by the project.

V. (340 points) Wildlife and Agricultural Land Conservation Benefits

Proponent should provide a statement of the relative importance of the project's wildlife and agricultural land conservation benefits. DWR will use the statement and all other project materials to assign a fraction of the total benefits to each type (wildlife (F_w) or agricultural land conservation (F_a)) so that the fractions total unity. Actual points scored for each type of resource will be multiplied by the respective fraction for each resource, and the wildlife and agricultural scores resulting for each type of resource will be added together.

A. (340x F_w points) Wildlife Benefits

Habitat values refer to the ecological value and significance of the habitat features at this location that presently occur, have occurred historically, or will occur after restoration.

Viability refers to the site's ability, after restoration if necessary, to remain ecologically viable with minimal on-site management over the long-term, and to be able to recover from any natural catastrophic disturbances (fire, floods, etc.).

A1. Importance of the site to regional ecology (70)

1. Describe any habitat linkages, ecotones, corridors, or other buffer zones within or adjacent to the site. How are these affected by the project?
2. Is the site adjacent to any existing conservation areas?
3. Describe any plans for aquatic restoration resulting in in-stream benefits.
4. Discuss any natural landscapes within the site that support representative examples of important, landscape-scale ecological functions (flooding, fire, sand transport, sediment trapping, etc.)?

Response Section V-A-A1:

The 128-acre project site is in a portion of the Clover Creek flood plain located in the southeast quadrant of the City of Redding. It is surrounded on three sides (north, east, and south) by existing urban residential development. To the west, a 35+ unit residential subdivision has been approved and it is anticipated will be under construction during the spring of 2003. The project site is comprised of annual grassland, oak savanna, oak woodland, riparian, and wetland habitats. Today, all areas are significantly disturbed by unauthorized off-highway vehicular trespass and illegal dumping activities. Clover Creek, which has been mapped as a seasonal creek, flows from north to south and roughly bisects the property. Several man-made bypass channels have been constructed on the site over the years by private landowners with the purpose of diverting storm drainage from adjacent residential subdivisions to points farther south.

No conservation areas currently exist in the immediate vicinity.

Development of the facility will ensure the enhancement and protection of the existing natural resources and provide for the creation on site of additional habitat areas. In total, over 15 acres of new wetland areas, including vernal pools, seasonal wetlands, seasonal marshes, perennial marshes, and an open water pond, will be developed on site. In addition, appropriate riparian vegetation adjacent to the newly naturalized creek channel will be reintroduced. These areas will be subject to regular monitoring by a habitat specialist to ensure plant viability until established. Please refer to the response associated with Section V-A-A3 for additional information relative to aquatic restoration on site.

A2. Diversity of species and habitat types (70)

1. Does the site possess any:
 - i. areas of unique ecological and/or biological diversity?
 - ii. vegetative complexity either horizontally or vertically?
2. Describe habitat components including year-round availability of water, adequate nesting/denning areas, food sources, etc.
3. Describe any superior representative examples of specific species or habitats.
4. Does the site contain a high number of species and habitat types? List and describe.
5. Does the site contain populations of native species that exhibit important subspecies or genetic varieties historically present prior to European immigration?

Response Section V-A-A2:

(Please refer to Section V-A-A3 response also.) As described previously, the existing site has diverse habitat areas including annual grassland, oak savanna, oak woodland, riparian, and wetland habitats. The ecological value of these habitat areas has been degraded due to urban encroachment, vehicular trespass, trash dumping, and site preparation for adjacent residential development. The current resident wildlife species are still somewhat diverse with numerous invertebrate, amphibian, reptile, mammal, and bird species inhabiting the site. According to the environmental documentation prepared pursuant to the California Environmental Quality Act (CEQA) for the project (included as Attachment B), no special-status species have been reported within the project site. However, based upon the habitats present and known species' distributive data, several special status species may occur within or seasonally utilize the Clover Creek site. Special status animals include two amphibians (California tiger salamander and Western spadefoot toad) and one reptile (Northwest pond turtle) as well numerous birds and mammals. Federally listed species with the potential to occur on site include two invertebrates that are federally threatened and endangered, respectively; the vernal pool fairy shrimp and the vernal pool tadpole shrimp. Wildlife surveys conducted on site have verified the presence of the vernal pool fairy shrimp species in one of the existing wetlands.

Rare plant surveys conducted on site did not discover any federally or state listed threatened or endangered species of plant existing on site. On special-status plant species, Red Bluff dwarf rush, however, was observed on site. This plant species is listed on the California Native Plant society's List 1B,

which is a list of plants considered rare throughout their range. Three populations were observed, with each estimated to have a population density of 100-150 plants.

A3. Ecological importance of species and habitat types (100)

1. Discuss the significance of habitat types at this location and include any local, regional, or statewide benefits received by preserving or improving the area.
2. Does the site contain any significant wintering, breeding, or nesting areas? Does it fall within any established migratory corridors? What is the level of significance? How are these affected by the project?
3. Describe any existing habitats that support any sensitive, rare, “keystone” or declining species with known highly restricted distributions in the region or state. Does the site contain any designated critical habitat? How are these affected by the project?
4. What is the amount of shaded riverine aquatic (SRA) and riparian habitat to be developed, restored, or preserved?

Response Section V-A-A3:

(Please refer to Section V-A-A2 response also.) As described previously, the Clover Creek site is comprised of annual grassland, oak savanna, oak woodland, riparian, and wetland habitats. Today, all areas are significantly disturbed by unauthorized off-highway vehicular trespass and illegal dumping activities, and scarred by the man made system of drainage ditches that traverse the site. Extensive grading in portions of the site has greatly impacted the current habitat value of much of the site. The proposed project will protect, restore, and enhance all of the existing habitat types and provide significantly improved ecological value for all species of plants and animals within the site.

Blue Oak Woodland regeneration is proposed for the majority of the northern and eastern portions of the site as well as the site perimeter and other scattered locations throughout the project area, a total of 49.70 acres. For the most part, these areas will be left undisturbed by site grading activities and existing oak woodland vegetation will be preserved. Existing vegetation is sparse with the vast majority of trees having a diameter at breast height (dbh) of 6 inches or less. To enhance the quality of the oak woodland community, new oak trees will be planted. The density of enhancement plantings for this area will be on the order of 110 plants per acre. To further enhance the Oak-woodland environment, understory woody plants common to this community including Manzanita (*Arctostaphyos* sp.), Ceanothus (*Ceanothus* spp.), and California Buckeye (*Aesculus californica*) will also be planted. Existing vernal pools and seasonal wetlands that are located in the areas proposed for Blue Oak Woodland will be preserved and enhanced with the construction of additional vernal pools and seasonal wetlands.

Blue Oak Savanna Woodland is proposed for the “L” shaped parcel of property located south of the parking area and north of the existing subdivision, a total of 7 acres. This area will support trails, picnic areas and other forms of passive recreation. It will be constructed primarily on fill material and graded to produce a rolling contour effect. Blue Oak and other native species such as Interior Live Oak (*Quercus*

wislizenii), Valley Oak (*Quercus lobata*), and Redbud (*Cercis occidentalis*) will dominate the Oak Savanna area. The entire Blue Oak Savanna area will also be seeded with appropriate native perennial grasses.

Within the detention basin, in addition to the meandering stream corridor and surrounding the seasonal wetland areas will be a Valley Oak Woodland community, totaling approximately 14.90 acres. In addition to planting of additional Valley Oak specimens at a density of 100 per acre, appropriate companion species such as Interior Live Oak (*Quercus wislizenii*), Coyote Brush (*Bacharis pillularis*), and Elderberry (*Sambucus* Sp.) will also be planted. The entire Valley Oak Woodland area will be seeded with appropriate native perennial grasses.

As part of the project, 2,700 lineal feet of the Creek will be restored to a natural meandering state, thereby providing protected and improved habitat and nesting areas for several species of migratory birds, including waterfowl; and improved habitat for other at-risk and/or protected plant or animal species, such as Red Bluff dwarf rush, and invertebrates, such as fairy shrimp. The restored channel will have planting benches created at varying depths along each bank which will be seeded with native grasses and seasonal wetland plants. Along the channel banks, a riparian woodland community will be established comprised primarily of broad leaf deciduous trees, willows and cottonwoods. Understory plants will include native grasses, wildflowers, herbs and shrubs. Planting native shrubs and grasses will provide important wildlife cover and nesting areas. Once established, the riparian woodland community will offer a very diverse ecology and will be capable of supporting a wide variety of plants and animals. Improved water quality and increased flow within the restored Creek channel resulting from the flood control processes on site will provide downstream ecological benefits as well. Foremost among these is improved habitat and spawning areas for numerous at-risk fish species, including winter, spring, fall, and late-fall run Chinook Salmon; steelhead trout; and striped bass as Clover Creek reaches its terminus with the Sacramento River, approximately 5.5 miles to the south. While essentially a storm drainage feature, the Clover Creek Preserve's 46-acre detention basin will also be an important ecological feature, containing a variety of wetland areas and marshes. Ending in a 6.7 acre fresh water pond, the basin will contain gradually-sloping sides and naturally-landscaped terraces. The pond will be fed continuously from an adjacent redeveloped water well maintaining a healthy water level year-round to support native wetland habitat and recreational fishing. The pond will then provide irrigation water for the drip irrigation system to be installed to support the new native vegetation plantings until fully established. The pond is anticipated to attract migratory water fowl and serve as a visual, ecological, and recreational amenity. Adjacent to the pond will be approximately 4.67 acres of emergent marsh habitat. Emergent marsh is dominated by grass like plants such as cattails, sedges, and bulrush that have rooted in bottom sediment but “emerge” above surface water. The emergent marsh will provide habitat for fish, birds, reptiles, and amphibians.

Establishment of large seasonal wetland areas (a total of 8.02 acres) is another primary feature of the proposed project. In general the seasonal wetland areas will be created within the large detention area by making topographical depressions on the bottom of the basin floor. The depressions will range in depth from 6 inches to 18 inches. The intent is to have them fill with water in the winter, gradually dry out in the spring, and remain dry through the summer and until the rain returns in the fall. This particular hydrological pattern is necessary to support seasonal wetland habitat. In addition, smaller pockets of seasonal wetlands, ranging in size from 1,000 to 7,000 SF will be both created and preserved in upland areas, surrounded by Blue Oak Woodland. These areas will provide potential habitat for vernal pool fairy shrimp, a federally listed and protected species of invertebrate. The site currently contains 1.59 acres of vernal pools, a particular kind of seasonal wetland. Of the 1.59 acres, .47 acres will be preserved as they currently exist.

The remaining 1.12 acres will be replaced with newly created vernal pools. Proposed are 1.40 acres of created vernal pools. Vernal pools will be created primarily within the oak woodland areas. Proposed techniques will salvage existing vernal pool topsoil to be used to “seed” the created pool areas.

A 23.05 acre grassland meadow is included in the project and will act as a buffer between wildlife habitat areas and adjacent development. The goal for this area is to achieve maximum biodiversity. The seeds and insects to be found in this type of habitat will be the basis for establishing a complete food chain. The abundant rodent populations in grasslands serve as food for a wide variety of species, such as coyotes and gray foxes, raptors and snakes. Songbirds also forage for seeds and insects in grassland areas and the dense spring vegetation provides excellent nesting grounds for many water fowl species.

Attached as Exhibit C, is the Predesign Technical Memorandum (PTM) prepared for the project and submitted to the State Water Quality Control Board in February 2001. The PTM more fully describes each of the above habitat areas as they relate to the proposed project.

A4. Public benefits accrued from expected habitat improvements (60)

1. Describe present public use/access, if any. For instance, does or will the public have access for the purpose of wildlife viewing, hunting, fishing, photography, picnics, etc.
2. Discuss areas on the site that are critical for successfully implementing landscape or regional conservation plans. How will the project help to successfully implement the plans?
3. Describe the surrounding vicinity. Include the presence or absence of large urban areas, rapidly developing areas, and adjacent disturbed areas with non-native vegetation and other anthropogenic features. Do any surrounding areas detract from habitat values on the site?
4. Describe compatibility with adjacent land uses.

Response V-A-A4:

The Preserve site is located within the southeast quadrant of the City of Redding, approximately in the geographic center of Shasta County. Geographically, the site is approximately 5 miles east of downtown Redding and approximately 4 miles northwest of the Redding Municipal Airport. State Route 44, located approximately 2.3 miles to the north of the project along Shasta View Drive, provides a primary east-west transportation route into Redding from the outlying areas of Shasta County. This route also provides a connection to Interstate 5, approximately 5 miles to the west of the project site. The Preserve is within 1.5 blocks of Alta Mesa School and approximately 1.3 miles from Shasta Meadows School, both K-5 public elementary schools serving the surrounding residential neighborhoods.

The site is currently accessible to the public by foot. However, misuse by the public has resulted in the property being subjected to illegal dumping and destructive off-road vehicle use. The existing creek and wetland features have been significantly degraded overtime due to these activities. Upon development, the Preserve's 4.5 miles of walking and bicycle trails will provide recreational users with many varied

opportunities to learn about the diverse range of plant and animal life found throughout the Preserve site, the role wetlands and riparian areas play in maintaining the ecological balance for these species, and the importance of this type of habitat both within Shasta County and throughout the larger Upper California Region. These trails are also necessary for maintenance access. Interpretive signage on site will further public knowledge regarding the range of riparian and wetland resources in the region and found on the Preserve site. Signage will also educate visitors regarding flood plain processes and the importance of flood plain management in this area. It is anticipated that local schools will utilize the site to provide outdoor learning opportunities in several study fields, including resource management, biology, botany, and ecology. This project will help the public enjoy the unique ecology and habitat in a natural, ever-changing learning environment. In a later phase, a resident docent-caretaker will provide on-site maintenance and monitoring. The docent will also provide the public with an expert resource for more in-depth understanding of both the flood control processes and ecological systems present on-site.

The Clover Creek project will provide a valuable educational and recreational resource to a regional population. The State Department of Finance's January 2002 population estimates for the City of Redding and for Shasta County are 84,600 and 169,200, respectively. A population of several thousand persons lives within a five-mile radius of the project site. While the site is surrounded by urban development, the adjacent residential uses are not incompatible with the multi-faceted purposes envisioned for the Clover Creek project. The habitat component of the project is essential to the design and will not be diminished by the surrounding human element. The trail layout will prevent human encroachment into the more sensitive wetland areas while providing both recreational and educational opportunities to visitors.

A5. Viability/sustainability of habitat improvements (40)

1. Describe any future operation, maintenance and monitoring activities planned for the site. How would these activities affect habitat values?
2. Does the site contain large areas of native vegetation or is it adjacent to large protected natural areas or other natural landscapes (for example, a large stand of blue-oak woodland adjacent to public land)?
3. Is the watershed upstream of the site relatively undisturbed or undeveloped and likely to remain so into the foreseeable future? Describe its condition.
4. Describe any populations of native species or stands of native habitats that show representative environmental settings, such as soil, elevations, geographic extremes, or climatic conditions (for example, the wettest or most northerly location of a species within the state.)

Response V-A-A5:

Please refer to previous descriptions of both the project, project site, and planned for environmental enhancements. The maintenance plan for each of the habitat areas will focus on controlling exotic woody species such as star thistle and fostering the establishment of reintroduced native species. A specific monitoring protocol is under review and will be in place both during and after development.

B. (340x F_a points) Agricultural Land Conservation Benefits

B1. Potential productivity of the site as farmland (120)

1. Describe the quality of the agricultural land based on land capability, farmland mapping and monitoring program definitions, productivity indices, and other soil, climate and vegetative factors.
2. Are projected agricultural practices compatible with water availability?
3. Does the site come with riparian, mineral, and/or development rights?
4. Is the site large enough to sustain future commercial agricultural production?
5. Does the site contain any adverse or beneficial deed restrictions affecting agricultural land conservation?
6. Describe the present type of agricultural use including the level of production in relation to the site's productivity potential. What is the condition of the existing infrastructure that supports agriculture uses?

Response V-B-B1: Not Applicable

B2. Farming practices and commercial viability (40)

1. Does the area possess necessary market infrastructure and agricultural support services?
2. Are surrounding parcels compatible with commercial agricultural production?
3. Is there local government economic support in place for agricultural enterprises including water policies, public education, marketing support, and consumer and recreational incentives?
4. Describe any present or planned future environmentally friendly farm practices (no till, erosion control, wetlands avoidance, eco-friendly chemicals, recycling wastes, water conservation, biological pest control).

Response V-B-B2: Not Applicable

B3. Need and urgency for farmland preservation measures (70)

1. Is the project site under a Williamson Act contract?
2. Describe the surrounding vicinity. Include the presence or absence of large urban areas, rapidly developing areas, low density ranchette communities, and adjacent disturbed areas with non-native vegetation and other human-induced features. Do any surrounding areas detract from agricultural values on the site?

3. What types of conversion or development are likely on neighboring parcels? What are the land uses of nearby parcels? Describe the effects, if any, of this project to neighboring farming operations or other neighboring land uses.
4. Describe the relationship between the project site and any applicable sphere of influence.
5. Is the agricultural land use on the project site consistent with the local General Plan? Does the General Plan demonstrate commitment to long-term agricultural conservation.

Response V-B-B3: Not Applicable

B4. Compatibility of project with local government planning (50)

1. Is the agricultural land use on the project site consistent with the local General Plan? Does the General Plan demonstrate commitment to long-term agricultural conservation?
2. What is the present zoning and is the parcel developable?
3. Is there an effective right to farm ordinance in place?
4. Is the project description consistent with the policies of the Local Agency Formation Commission?
5. Will the project as proposed impact the present tax base?

Response V-B-B4: Not Applicable

B5. Quality of agricultural conservation measures in the project (50)

1. For agriculture lands proposed for conservation, describe any additional site features to be conserved that meet multiple natural resource conservation objectives, including wetland protection, wildlife habitat conservation, and scenic open space preservation where the conservation of each additional site feature does not restrict potential farming activities on the agriculture portions of the site.
2. What are the present biological/ecological values to wildlife? How are these values affected by the proposed project?
3. Is the project proponent working with any local agricultural conservancies or trusts?
4. Does conservation of this site support long-term private stewardship of agricultural land? How does this proposal demonstrate an innovative approach to agricultural land conservation?

5. Without conservation, is the land proposed for protection likely to be converted to non-agricultural use in the foreseeable future?

Response V-B-B5: Not Applicable

VI. (320 points) Miscellaneous Benefits and Quality of Proposal

A. Size of request, other contributions, number of persons benefiting, cost of grant per benefited person (40)

Estimated Total Project Cost	<u>\$10,597,753</u>
Amount of FPCP Grant Funds Requested	<u>\$ 3,700,000</u>
Amount of Local Funds Contributed	<u>\$ 7,316,581</u>
Amount of In-kind Contributions	<u> </u>

Additional Funding Sources:

Secured funding sources for the project include redevelopment tax increment from the multi-jurisdictional SHASTEC Project (\$2 million); Costa-Machado Water Act of 2000 – State Water Quality Control Board (\$5 million); and local developer impact fees (\$316,581). These total \$7,316,581 and are listed above under “Local Funds Contributed”.

Number of persons expected to benefit	<u>80,000 persons</u>
Flood Protection Corridor Funds per person benefited.*	<u>\$46.25</u>
(* Count as beneficiaries those receiving flood benefits, recreational users of habitat areas protected by the Project, and consumers of food products from agricultural areas conserved by the Project.)	

B. Quality of effects on water supply or water quality (90)

1. Will water stored by the project provide for any conjunctive use, groundwater recharge, or water supply benefit?
2. Does the project fence cattle out?
3. Does the project pass water over newly developed fresh water marsh?
4. Does the project trap sediments?

Response VI-B:

It is anticipated that the project will result in an improvement to surface water quality by providing bank stabilization components and decreasing the creek’s straight channel configuration with a meandering feature. Surface water quality improvements should also be realized through the meandering of open ditches that currently carry urban runoff directly to the creek channel. Drainage swales will be created that allow time for settling of any particles and plant uptake of any nutrients that may result from urban runoff prior to reaching the stream channel. In the long-term, the project is expected to reduce sediment load as a result of site restoration and re-vegetation.

The grassland/meadow areas described under Section V-A-A3 will serve as a natural filtration system for water before it reaches the detention basin. The freshwater emergent marsh area surrounding the year-round pond feature will also provide a natural filter for water prior to it entering the downstream channel.

C. Quality of impact on underrepresented populations or historic or cultural resources (60)

1. Does the project benefit underrepresented populations? Explain.
2. Are historical or cultural resources impacted by the project? Explain.

Response VI-C:

As described previously, the Clover Creek site is surrounded by residential development. On its northwest boundary is an older residential neighborhood with a significant number of lower-income households. This population as well as others in the immediate vicinity and in the entire region will benefit from the availability of increased recreational and educational amenities of the type proposed by the project. The area to the south of the site which is the primary area impacted by flood events is a mixed neighborhood comprised of both small, older homes and newer subdivisions.

No historic or cultural resources are impacted by the project.

D. Technical and fiscal capability of the project team (60)

1. Does the project require scientific or technical expertise, and if so, is it provided for in the grant proposal?
2. Grant funds will be available in phases. What monitoring and reporting mechanisms are built into your administrative plan to track progress, initiation, and completion of successive phases?
3. Please outline your team's management, fiscal and technical capability to effectively carry out your proposal. Mention any previous or ongoing grant management experience you have.

Response VI-D:

Under contract with the City of Redding, the firm of Stantec Consulting Inc. has had primary responsibility for the design and engineering work necessary for the Clover Creek project as well as oversight of all project hydrologic and hydraulic analyses. The environmental documentation and development of mitigation measures for the project was completed under a City of Redding contract with the firm of ECORP Consulting, Inc.

Development of the Clover Creek Preserve will be overseen by the City of Redding's Development Services Engineering Division. The in-house project manager is Mr. Bob Russell, Assistant City Engineer for the City of Redding. Mr. Russell, a registered California Civil Engineer, has over 15 years of experience managing the development of public works projects and is fully qualified to oversee the development of this activity. In addition, the City anticipates contracting with a professional construction manager to be on site daily during the construction phase of the project and to be responsible for the coordination and facilitation of construction activities.

Following development, the Clover Creek Preserve will be under the management of the City's Municipal Utilities Department and the Parks Maintenance Division of its Support Services Department. All long-term maintenance of the facility will be the responsibility of the City of Redding. Required monitoring of the habitat restoration areas has been included as part of the project cost and will be contracted to an independent firm with that area of expertise.

Grant administration will be the responsibility of the Finance Division of the City's Administrative Services Department. Finance staff has successfully administered grants from both State and Federal sources on numerous past projects. The City is committed to ensuring that contracts are administered on a timely and fiscally sound basis.

E. Coordination and cooperation with other projects, partner agencies, and affected organizations and individuals (80)

1. List cost sharing and in-kind partners and any other stakeholders involved with your project and indicate the nature of their contribution, if any. Address the team's ability to leverage outside funds.
2. Does your project overlap with or complement ongoing activities being carried out by others (such as CALFED, the Sacramento and San Joaquin River Basins Comprehensive Study, the Delta levee program, local floodplain management programs, the Reclamation Board's Designated Floodway program, or a multiple objective regional or watershed plan)? If so, indicate any coordination that has taken place to date or is scheduled to take place in the future.
3. Will this application, if approved, begin the next phase of a previously approved project or advance an ongoing project substantially toward completion?
4. Describe how the proposal demonstrates a coordinated approach among affected landowners, local governments, and nonprofit organizations. If other entities are affected, is there written support for the proposal and a willingness to cooperate?

Response VI-D:

The Redding area is within the Keswick Dam to Red Bluff Reach of the Upper Sacramento River Fisheries and Riparian Habitat Management Plan. Clover Creek is a major water contributor to the Sacramento watershed within this reach. The project will enhance both water quality and habitat for the Clover Creek watershed, thus contributing to the overall health of the Sacramento River. The project will assist in the CALFED effort as improving the health of the Sacramento River and its delta is CALFED's prime focus.

The multi-jurisdictional SHASTEC Redevelopment Project Area comprised of the Cities of Redding and Anderson and the County of Shasta has committed \$2 million of its tax increment funds to the development of the Clover Creek project. In 1999, the respective boards of the redevelopment agencies for these entities unanimously approved the use of redevelopment funds for this project due to the wide spread benefit to be realized from the facility. The City of Redding and the Redding Redevelopment Agency (Agency) were designated to act in a lead role in the development of the facility.

As of February 2003, the project has a budget shortfall of \$3,281,377 based upon the project engineer's opinion of probable cost. The City and its partners are exploring funding alternatives and will submit requests for funding assistance to all viable sources.

If the request for FPCP funding is successful, the project will be able to move into construction immediately. Authorization to advertise and receive competitive bids for construction of the project was given by the Agency earlier in February 2003. A timeline for the completion of that process and construction is included as part of Attachment C.

Thank you for taking the time and effort to fill out this application. Please send one hard copy with required signatures by 3:00 p.m. on February 14th, 2003 to:

Earl Nelson, Program Manager
Flood Protection Corridor Program
Division of Flood Management
1416 9th Street, Room 1641
Sacramento, CA 95814

Please also send an electronic copy by 3:00 p.m. on February 14th, 2003 to:

Bonnie Ross at bross@water.ca.gov

ATTACHMENT A

Excerpts from

REQUEST FOR CONDITIONAL LETTER OF MAP REVISION
FOR CLOVER CREEK DETENTION BASIN

ATTACHMENT B

INITIAL STUDY AND MITIGATED NEGATIVE DECLARATION

CLOVER CREEK PROJECT

In compliance with the requirements of Public Resource Code Sections 21100 and 21152, a Notice of Determination (NOD) under CEQA for the Clover Creek Project was filed on May 25, 2001. The Project with adopted mitigation measures was determined not to have a significant effect on the environment. A copy of the Initial Study, the NOD, and the Subsequent Mitigated Negative Declaration for the Project are included in this section.

ATTACHMENT C

Other 497.7 Requirements, including:

- a) Project Permitting;
 - b) Public Participation;
 - c) Statement Regarding Trust Fund for Maintenance of Facility; and
 - d) Authorizing Resolution.
 - e) Project Financial Summary;
 - f) Project Site Land Tenure;
 - g) Project Work Plan/Time Table/Use of CCC on Project;
-

a) **REQUIRED RESOURCE AGENCY PERMITS**

During the CEQA process, three (3) resource agency permits were identified as likely to be required for the Project. These permitting processes involve four (4) separate State and Federal resource agencies. Each agency, its jurisdiction relative to the proposed Project, and the status of the required permit is described below:

1) ***U.S. Army Corps of Engineers.*** The Corps of Engineers (Corps), under Section 404 of the Clean Water Act, has jurisdiction over the placement of dredged or fill materials into waters of the United States. Fill or dredging activities may be permitted via an individual permit or a nationwide permit (generally for lesser magnitude impacts). Following a preapplication conference with representatives of the Corps, California State Department of Fish & Game (CDFG), U.S. Fish and Wildlife Service (USFWS), and the U.S. Environmental Protection Agency, an application for an individual permit was submitted in August 2001 to the Corps. The process is underway and it is anticipated that full approval of the Project and issuance of a “404” permit will occur by the end of February 2003.

2) ***U.S. Fish and Wildlife Service.*** Since the project contains wetlands that have been determined to provide habitat for threatened or endangered branchiopod species, and it has been determined that the construction of the project may result in an incidental take of such species, the Corps has chosen to initiate consultation with the USFWS under Section 7 of the Endangered Species Act as part of the 404 permit process. Such consultation includes a USFWS review of the project and the adopted mitigation measures contained in the project CEQA documents and the issuance of a Biological Opinion from the USFWS. During November and December 2001 the required consultation and review took place. Staff believes that all issues have been satisfactorily resolved and the issuance of a written Opinion by USFWS is imminent. It is anticipated that the Opinion will provide the necessary authorization for the anticipated incidental take in order for the project to move forward.

3) ***Regional Water Quality Control Board.*** The Central Valley Regional Water Quality Control Board (RWQCB) is responsible for enforcing water quality criteria for the Redding area, including permitting any discharges to surface waters. Pursuant to Section 401 of the Clean Water Act, the RWQCB has determined that anticipated project discharges will comply with the Act. The Section 401 certification was issued in September 2001.

4) California Department of Fish and Game. Pursuant to Section 1600 of the California Fish and Game Code, a Streambed Alteration Agreement with the CDFG is required for any project that intends to substantially divert or obstruct the natural flow of, or substantially change the bed, channel, or bank of, or use the material from the streambed of a watercourse. CDFG and the City entered into a Streambed Alteration Agreement in October 2001 for the Clover Creek Preserve project.

b) Public Participation

Over the past 24 months, the design team responsible for the development of the Clover Creek Preserve Project has involved the public in this process through the use of regular project bulletins, public meetings, and presentations to a variety of civic groups. The public response to date has been enthusiastic and positive. It is anticipated that upon development the City will strongly encourage continued local stewardship of the resources through further involvement of the adjacent elementary schools, residential neighborhood groups, and interested local environmental groups. Preliminary discussions have occurred with the schools in the area regarding the use of the site for outdoor classroom activities and with a local watershed conservation group regarding “adoption” of the Clover Creek tributary for public volunteer activities related to clean-up and further restoration.

c) Statement Regarding Trust Fund for Maintenance of Facility

The Project Engineer has provided an estimate of initial annual maintenance cost for the Clover Creek facility following construction of \$165,000 per year for the first three years. The first three years following construction will require a significant amount of monitoring/maintenance effort associated with the establishment and nurturing of the habitat areas. Of the \$165,000 cost, \$150,000 is specifically for the care of the habitat areas. After the initial three year stabilization period, the annual maintenance costs are estimated to be substantially less for these elements. For the fourth year and each year there after, the annual maintenance cost for the entire facility is estimated to be \$65,000.

This request for funding assistance includes \$418,623 specifically to establish a maintenance trust account for the finished facility. As is described above, the estimated annual cost for maintenance is likely to exceed the available interest on the trust fund monies. The City has committed to providing the remainder of the funds necessary for facility maintenance which will ensure that the facility and particularly the planned for habitat restoration/enhancement components, are overseen in a professional and competent manner following construction.

d) Authorizing Resolution

On February 4, 2003, the Redding City Council adopted Resolution No. 2003-12 approving the submittal of an application to the State Department of Water Resources under the Flood Protection Corridor Program. Pursuant to the Resolution, a copy of which is attached hereto, the City Manager or designee is authorized to conduct all negotiations, and execute and submit all documents which may be necessary. Mr. Terry Hanson is the City Manager’s designee for the purposes of this grant application. Attested to by his signature on the Resolution, the City Attorney, Mr. Brad Fuller, has certified that the Resolution text is appropriate, and correct.

Redding City Council Resolution No. 2003-12

e) Project Financial Summary

TABLE 1

Clover Creek Preserve Project Estimate of Cost	
COST CATEGORY	TOTAL COST
Environmental/Environmental Mitigation	\$451,750
Design/Engineering/Project Management	\$726,350
** Property Acquisition – 122 acres	\$2,093,116
Subtotal:	\$3,271,216
Construction Contract	\$6,118,837
Construction 10% Contingency	\$611,883
Plant Acquisition	\$81,022
Subtotal:	\$6,811,742
Mitigation Monitoring/Restoration Biologist	\$90,000
Construction Management/Inspection	\$425,000
Subtotal:	\$515,000
PROJECT GRAND TOTAL:	\$10,597,958
** (Maintenance Trust Fund at 20% of Property Acquisition cost: \$418,623)	

f) Project Site Land Tenure

The City of Redding has acquired legal fee title to all property identified as part of the project site. No further acquisition of property is necessary. Approximately 122 acres was acquired over the past twelve months at a cost of \$2,093,116. A 6-acre parcel owned by the City for a previous water utility well is also part of the project site. The value of this parcel is estimated to be approximately \$60,000 and is being provided as an in-kind contribution to the project.

g) Project Work Plan/Time Table/Use of CCC on Project

The City of Redding has established a close relationship with the Redding Field Office of the California Conservation Corp. for development of trails/public access projects. The California Conservation Corp. will be used to develop 13,600 feet of unpaved public access trails throughout the 129 acre riparian/oak woodland/wetland enhancement areas. This component of the project is estimated to cost \$200,000.

Table 2 provides the anticipated time line for the construction of the project.

TABLE 2
Clover Creek Preserve Development Timeline

ACTION	CALENDAR													
	2003												2004	
	Feb	Mar	Apr	May	Jun	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar
Submit Flood Protection Corridor Program Application	t													
Bid Project		t												
State DWR Approval of FPCP Grant				t										
Execution of State DWR FPCP Contract					t									
Execute Construction Contract					t									
Start Construction						t								
Complete Construction													t	
Clover Creek Preserve Opening														t